UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/553,096	09/15/2006	Stephen Privett	P07342US0	6624

22885 7590 01/27/2009

MCKEE, VOORHEES & SEASE, P.L.C.
801 GRAND AVENUE
SUITE 3200
DES MOINES, IA 50309-2721

EXAMINER	
PAUL, DISLER	

ART UNIT	PAPER NUMBER
2614	

MAIL DATE	DELIVERY MODE
01/27/2009	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/553,096	PRIVETT, STEPHEN	
	Examiner	Art Unit	
	DISLER PAUL	2614	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *01 December 2008*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-8* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-8* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. In response to the applicant's amended claim wherein "said system is configured so that the said power supply is connected to a plurality of said amplifier arrangements via respective electrical cable" has been further analyzed and rejected in view of Kemmerer et al. (US 2003/0123678 A1) and Sato (US 4,380,809).

1. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 1-2, 4, 8 are rejected under 35 U.S.C. 102(a) as being anticipated by Kemmerer et al. (US 2003/0123678 A1) and Sato (US 4,380,809).

Re claim 1, Kemmerer et al. disclose of a distributed audio system including at least one speaker, a power supply and, intermediate said power supply and at least one speaker there is provided an amplifier arrangement (fig.1;/further wt power supply in vicinity of) comprising an audio input, an audio output, a switching regulator and a switching amplifier(fig.1-2 wt (5,1-4); par[0033,0035]), wherein the switching regulator is arranged to receive a variable DC electrical input from a power supply and output a substantially constant voltage to the switching amplifier, said power supply being arranged remotely of said amplifier arrangement (fig.2 wt (remote amplify to (42); 2-4); par[0036,0059,0029]) and wherein said system is configured so that the said power supply is connected to a plurality of said amplifier arrangements (fig.2 wt (4) power supply as being connected to plurality of amplifier arrangement as in fig.2 wt (2-3); par[0031]).

However, Kemmerer et al. fail to disclose of the specific wherein the power supply is connected to a plurality of said amplifier arrangements via respective electrical cable. But, Sato disclose of a system wherein similar concept of the power supply is connected to a plurality of said amplifier arrangements via respective electrical cable (fig.1 wt (1-2,13) with cable (16) for interconnection of power supplies to amp & col.2 line 40-60) . Thus, taking the combined teaching of Kemmerer et al. and Sato as a whole, it would have been obvious for one of the ordinary skill in the art to have modified Kemmerer et al. with the power supply is connected to a plurality of said amplifier arrangements via respective electrical cable for providing electrical connection to put system into operation.

Re claim 2, the audio system according to claim 1, wherein the switching amplifier is a digital amplifier (fig.1 (2); par [0031]).

Re claim 4, audio system according claim 2, wherein the circuitry of either the switching regulator and/or the switching amplifier is constructed of discrete components (fig.2 wt (2a,2b,2c); par[0059]).

Re claim 8, the audio system according to claim 1, wherein the power supply is connectable to the remote amplifier arrangement via a wire (fig.1-2; par [0029]), However, Kemmerer et al. fail to disclose of the specific wherein the connection of the power supply and amplifier varies in length between a preselected maximum e.g. 50 m, and a preselected minimum, e.g. 1 m.. However, official notice is taken the concept of having the specific length of between a preselected maximum e.g. 50 m, and a preselected minimum, e.g. 1 m. is simply the inventor's preference. Thus, it would have been obvious for one of the ordinary skill in the art to have modify Kemmerer et al. with the connection of power supply and amplifier with specific length of between a preselected maximum e.g. 50 m, and a preselected minimum, e.g. 1 m. for providing power to the entire digital amplifier.

4. Claims 5-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kemmerer et al. (US 2003/0123678 A1) and Sato (US 4,380,809) and further in view of Yang et al. (US 6,975,738 B2).

Re claim 5, the audio system according to claim 4 with processing an audio channel with the switching amplifier, However, the combined teaching of Kemmerer et al. and Sato as a whole, fail to disclose of the specific wherein the amplifier processes at lease two channels of audio input. However, Yang et al. disclose of a system wherein the amplifier processes at lease two channels of audio input (fig.5-6; col.2 line 40-49/stereophonic amplifier) for purpose of producing stereo signal output corresponding to channels signal. Thus, taking the combined teaching of Kemmerer et al. and Sato and Yang et al. as a whole, it would have been obvious for one of the art to have modified the combined teaching of Kemmerer et al. and Sato as a whole, with the amplifier processes at lease two channels of audio input for purpose of producing stereo signal output corresponding to channels signal.

Re claim 6, the audio system according to claim 5, further including an auxiliary control device, e.g. to control the audio output volume (Kemmerer, par [0009-0010]/remote control receiver may be used).

Re claim 7, the audio system according to claim 6, wherein the switching regulator and the switching amplifier are being housed (fig.1-2). However, the combined teaching of

Kemmerer et al. and Sato and Yang et al. as a whole, teach of the specific wherein the switching regulator and the switching amplifier are being housed in a single housing. But, official notice is taken the concept of having the adjustment wherein the switching regulator and the switching amplifier are being housed in a single housing is simply the inventor's preference, thus it would have been obvious to have modify the combined teaching of Kemmerer et al. and Sato and Yang et al. as a whole, with such the switching regulator and the switching amplifier are being housed in a single housing for adjustment various component functions.

5. Claims 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kemmerer et al. (US 2003/0123678 A1) and Sato (US 4,380,809) and further in view of Pearce et al. (US 5,973,368).

Re claim 3, the audio system according to claim 2 with the switching amplifier , However, the combined teaching of Kemmerer et al. and Sato as a whole, fail to disclose of the specific wherein the switching amplifier is a class D digital amplifier with associated H-bridge circuit on the output stage. But, Pearce et al. disclose of an audio amplifier wherein the switching amplifier is a class D digital amplifier with associated H-bridge circuit on the output stage (fig.1F-G; col.6 line 35-65; col.13 line 35-47) for purpose of driving the speaker with the low voltage audio signal. thus, taking the

combined teaching of Kemmerer et al. and Sato and Pearce et al. as a whole, it would have been obvious for one of the ordinary skill in the art to have modify Kemmerer et al. with the audio amplifier wherein the switching amplifier is a class D digital amplifier with associated H-bridge circuit on the output stage for purpose of driving the speaker with the low voltage audio signal.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DISLER PAUL whose telephone number is (571)270-1187. The examiner can normally be reached on 7:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chin Vivian can be reached on 571-272-7848. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/D. P./
Examiner, Art Unit 2614

/Vivian Chin/
Supervisory Patent Examiner, Art Unit 2614